IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Assignee:

0-IN DESIGN AUTOMATION

Title:

A METHOD FOR AUTOMATICALLY SEARCHING FOR

FUNCTIONAL DEFECTS IN A DESCRIPTION OF A CIRCUIT

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BOX PATENT APPLICATION COMMISSIONER FOR PATENTS Washington, D. C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Prior to examination, please amend the above-referenced application as follows:

IN THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 18, with the following paragraph:

This application is a continuation of U.S. Patent Application Serial No. 08/954,765, filed October 20, 1997. In addition, this application is related to and incorporates by reference herein in its entirety the concurrently filed, commonly owned U.S. Patent Application, Serial Number 08/955,329 [Attorney Docket Number M-5302 US] filed by

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Tai An Ly, et al., and entitled "A Method for Automatically Generating Checkers for Finding Functional Defects in a Description of a Circuit".

In accordance with 37 CFR § 1.121(b)(1)(iii), Appendix A contains a marked up version of the amended paragraph illustrating the newly introduced changes in the specification.

IN THE CLAIMS

Please cancel claims 1-10. Please add new Claims 11 to 13, as follows:

11. A computer-implemented method for determining defects in the functional behavior of a circuit, the functional behavior of the circuit including a plurality of states and a plurality of transitions between the states, the states including a current state, a plurality of next states reachable from the current state, and a reset state, the method comprising:

simulating the functional behavior of the circuit using a description of the circuit, wherein the simulating includes:

transitioning the simulation from the current state to a first next state; transitioning the simulation from the current state to a second next state; wherein transitioning from the current state to the second next state is performed automatically after transitioning from the current state to the first next state without entering the reset state; and

determining defects in the functional behavior of the circuit using the simulating.

- 12. The method of Claim 11, wherein the simulation is set to the current state after transitioning to the first next state.
- 13. The method of Claim 11, wherein the first transitioning is performed in response to a first test vector, and the second state transition is performed in response to a second test vector.

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REMARKS

Please enter the above amendments prior to examination on the merits. If there are any question, please contact the undersigned at 408/453-9200.

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Respectfully submitted,

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Appendix A

The following is a marked up version of the amended paragraph beginning at page 1, line 18.

This application is a continuation of U.S. Patent Application Serial No. 08/954,765, filed October 20, 1997. In addition, this [This] application is related to and incorporates by reference herein in its entirety the concurrently filed, commonly owned U.S. Patent Application, Serial Number _____ [Attorney Docket Number M-5302 US] filed by Tai An Ly, et al., and entitled "A Method for Automatically Generating Checkers for Finding Functional Defects in a Description of a Circuit".

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